

## REMARKS

Claims 1 through 16, 20 through 26, 30 through 49, 53 through 59, and 63 through 78 are pending in the application. In the Office Action mailed October 23, 2006, the Examiner:

- Objected to claim 9 because of an informal error;
- Rejected claims 44 through 65 under Section 112 as being indefinite;
- Rejected claims 44, 47, 53, 56, and 63 as having an insufficient antecedent basis;
- Rejected claims 45, 46, 48 through 52, 54, 55, 57 through 62, 64, and 65 because of their dependency of previously-rejected claims;
- Rejected claims 1 through 6, 11 through 15, 20 through 25, 30 through 32, 34 through 39, 44 through 48, 53 through 58, and 63 through 65 under Section 103(a) as being unpatentable over U.S. Patent No. 6,364,829 to Fulghum in view of U.S. Patent No. 6,061,591 to Freitag;
- Rejected claims 7, 8, 16, 17, 26, 27, 40, 41, 49, 50, 59, and 60 under Section 103(a) as being unpatentable over Fulghum in view of Freitag, further in view of Fulghum;
- Rejected claims 9, 10, 18, 19, 28, 29, 42, 43, 51, 52, 61, and 62 under Section 103(a) as being unpatentable over Fulghum in view of Freitag, in further view of Fulghum; and
- Rejected claims 33 and 66 under Section 103(a) as being unpatentable over Freitag in view of U.S. Published Patent Application No. 2002/0049375 to Strommer.

Applicant by this paper amends the two existing independent claims, 1 and 34, amends dependent claims 4 through 7, 9, 14, 16, 26, 35 through 39, 43, 47, 49, 53, and 59, submits new dependent claims 67 through 78, and cancels claims 17 through 19, 27 through 29, 50 through 52, and 60 through 62.

### **Informality Rejection**

The inaccurate dependency of claim 9 has been corrected.

### **Section 112 Rejections**

Claim 34 has been amended to recite that “an additional assessment” is performed, thereby supplying the antecedent basis for claims 44 through 65.

### **Section 103 Rejections**

The present invention is an automatic endoscopy platform that performs fluorescence imaging, reflectance spectroscopy, and fluorescence spectroscopy simultaneously as a transparent background task during a white-light endoscopic procedure. Basically, the device of the present invention can perform four modalities (white-light imaging, fluorescence imaging, reflectance imaging, and fluorescence spectroscopy) simultaneously in real-time. This performance is an improvement of the prior art.

Fulghum teaches switching between normal visible light imaging and fluorescence imaging and providing a white-light image with a false color overlay indicating an abnormal tissue based on fluorescence (col. 4 lines 44-54). Fulghum switches between a white-light imaging mode and a fluorescence imaging mode using an electronic switch. In addition, Fulghum does not describe or teach performing spectroscopy simultaneously in addition to an imaging mode.

Freitag discloses a method and device for performing white-light imaging and fluorescence spectroscopy sequentially utilizing two light sources for white-light illumination (stroboscope) and fluorescence excitation (laser). Freitag does not describe or teach a method or

device for performing multimodal imaging and multimodal spectroscopy simultaneously in real time.

Independent claim 1 recites an apparatus having means for performing a white-light imaging assessment of the target and a means for simultaneously performing at least one additional assessment of the target as a transparent background task to determine if the target is in a normal state or an abnormal state. Based on that additional assessment, the apparatus performs an action. This structure is not described in the prior art.

Similarly, independent claim 34 recites a first step of assessing the target based on a white light imaging mode, and a second step of simultaneously performing an additional assessment of the target as a transparent background task to determine if the target is in a normal state or in an abnormal state. Based on that additional assessment, a step of performing an action occurs. These steps are not described in the prior art..

Since independent claims 1 and 34 are not obvious over the cited prior art, those claims dependent thereon are similarly not obvious.

Applicant accordingly requests that the amended claims be allowed.

## **Summary**

Applicant's claims define statutory subject matter, and are novel over Fulghum and Freitag, in combination with each other and with Strommer.

Applicant believes no fee is required. If the Examiner disagrees, the United States Patent and Trademark Office is hereby authorized and requested to charge the fee associated with this Response to the deposit account of the undersigned firm, Account No. 20-1495.

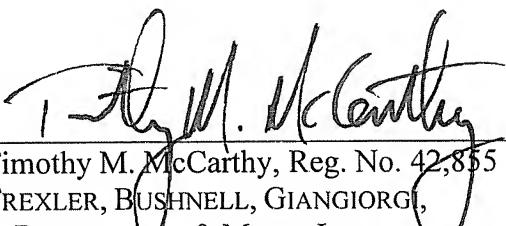
Should the Examiner have any questions regarding this Amendment, the Examiner is

invited to contact the undersigned attorney at (312) 704-1890.

Respectfully submitted,

Date: January 23, 2007

By: \_\_\_\_\_



Timothy M. McCarthy, Reg. No. 42,855

TREXLER, BUSHNELL, GIANGIORGI,  
BLACKSTONE & MARR, LTD.

Attorney for Applicant  
105 W. Adams Street, 36th Floor  
Chicago IL 60603  
(312) 704-1890